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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,415	05/04/2004	Brian Thinh-Vinh Tran	SVL920030099US1	3414
45727	7590	05/13/2010	EXAMINER	
IP AUTHORITY, LLC			JOHNSON, JOHNESE T	
RAMRAJ SOUNDARARAJAN				
4821A Eisenhower Ave			ART UNIT	PAPER NUMBER
Alexandria, VA 22304			2166	
			NOTIFICATION DATE	DELIVERY MODE
			05/13/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/709,415	TRAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Johnese Johnson	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 23 April 2010.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-4,9 and 14-20 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-4, 9, and 14-20 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>1-14-08, 7-28-09, 10-20-09</u>	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____ .

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 23, 2010 has been entered.

2. In response to the Amendment filed on April 23, 2010, claims 1-4, 9, and 14-20 are pending in this application. Claims 17-20 are newly added.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims are rejected under 35 U.S.C. 103(a) as being unpatentable over Lentini et al. (US PG. Pub. No. 2003/0088639), in view of Bowman (US PG. Pub. No. 2004/0111672).

As to claims 1 and 9, Lentini discloses

- a. converting a mark-up language document to a logical tree-based representation comprising a plurality of nodes, each node other than a root node having a local identifier (see paragraph 17),
- c. sequentially encoding each local identifier other than said root node in hexadecimal notation starting with an initial hexadecimal value and incrementing the initial hexadecimal value by said initial base length (see fig. 5, wherein it is obvious to use hex because it is easily converted into binary),
- d. adaptively extending said initial base length by at least one additional byte upon exhausting all incremental hexadecimal values based on said initial base length (see fig. 5; wherein, for example, node A2 has an initial base length of 2 and is extended by two each time- A2, A22, A222),
- e. encoding at least one local identifier other than said root node and a node not encoded in step (c) based on said extended base length (see

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paragraph 57),

f. assigning node identifiers to said plurality of nodes other than said root node by concatenating encoded values of local identifiers of all nodes along a path from said root node to a node to which a node identifier is currently being assigned (see paragraph 57 and fig. 5), and

However, Lentini does not explicitly disclose"

b. choosing an initial base length of at least one byte with which to encode local identifiers of said nodes;

g. outputting and storing said node identifiers associated with said nodes of said mark-up language document in computer storage extending Bowman does disclose:

Bowman does disclose:

b. choosing an initial base length of at least one byte with which to encode local identifiers of said nodes (see paragraph 118);

g. outputting and storing said node identifiers associated with said nodes of said mark-up language document in computer (see paragraphs 113 and 121 ).

It would have been obvious to have modified the teachings of Lentini by the teachings of Bowman to provided a system for extending interactivity of presentation markup languages (See Bowman, paragraph 17).

As to claims 17 and 19, Lentini, as modified by Bowman, discloses: wherein said markup-language document is an XML document (see Lentini, paragraph 17).

5. Claims 2-4, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lentini et al. (US PG. Pub. No. 2003/0088639), in view of Bowman (US PG. Pub. No. 2004/0111672) and further in view of O'Neil (U.S. Pat. No. 6,889,226).

As to claim 2, Lentini, as modified by Bowman, does not explicitly disclose: wherein inserting a node into an existing tree does not require change to existing node identifiers.

However, O'Neil discloses:

wherein inserting a node into an existing tree does not require change to existing node

identifiers (see O'Neil, paragraph [0050], lines 16-19, and 1-11; wherein a node is inserted between nodes after a tree has been constructed (existing tree) and only assigns the inserted node an identifier (does not require change)).

It would have been obvious to have modified the teachings of Lentini and Bowman, by the teachings of O'Neil to provide a technique for representing hierarchical data in a non-hierarchical data structure (see O'Neil, col. 1, lines 38-39).

As to claim 3, Lentini, as modified by Bowman, discloses:  
wherein a node is inserted between a first node and a second node having consecutive local identifiers (see O'Neil, paragraph 49, lines 14-15).

As to claim 4, Lentini, as modified by Bowman, discloses:  
wherein said inserted node is assigned a local identifier having a string length longer than string length of said first node (see Lentini, fig. 5, and see rejection for 1(d)).

As to claims 14 and 15, Lentini, as modified by Bowman, discloses: wherein said assigned local identifiers are assigned values based on variable-length (see O'Neill col. 2, lines 9 and 10; wherein the scheme allows for shorter lengths which means that the length may be longer or shorter, i.e. variable) binary string encoding (see O'Neil, col. 9, lines 27-29; wherein the scheme can be any numbering scheme).

It would have been obvious to have modified the teachings of Lentini and Bowman, by the teachings of O'Neil to provide a technique for representing hierarchical data in a non-hierarchical data structure (see O'Neil, col. 1, lines 38-39).

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lentini et al. (US PG. Pub. No. 2003/0088639), in view of Bowman (US PG. Pub. No. 2004/0111672) and further in view of Hu (U.S. Pat. No. 7,274,671).

As to claim 16, Lentini discloses:

- a. choosing an initial base length of at least one byte with which to encode local identifiers of nodes of a logical tree-based representation of an XML document (see rejection for claim 1),
- c. sequentially encoding each local identifier other than said root node in hexadecimal notation starting with an initial hexadecimal value and incrementing the initial hexadecimal value by said initial base length (see rejection for claim 1),
- d. adaptively extending said initial base length by at least one additional byte upon exhausting all incremental hexadecimal values based on said initial base length (see rejection for claim 1),
- e. encoding at least one local identifier other than said root node and a node not encoded in step (c) based on said extended base length (see rejection for claim 1),
- f. assigning node identifiers to said plurality of nodes other than said root node by concatenating encoded values of local identifiers of all nodes along a path from said root node to a node to which a node identifier is currently being assigned (see rejection for claim 1), and

However, Lentini does not explicitly disclose:

b. assigning a value of zero as a node identifier to a root node in a logical tree.

Hu does disclose:

b. assigning a value of zero as a node identifier to a root node in a logical tree (see col. 3, lines 1-7).

It would have been obvious to have modified the teachings of Lentini by the teachings of Hu to assign a value of zero to the root to designate it as the top level of the tree (see Hu, col. 3, lines 1-7).

However, Lentini and Hu does not explicitly disclose:

g. outputting and storing said node identifiers associated with said nodes of said XML document in computer storage.

Bowman discloses:

g. outputting and storing said node identifiers associated with said nodes of said XML document in computer storage (see paragraphs 113 and 121).

It would have been obvious to have modified the teachings of Lentini and Hu by the teachings of Bowman to provided a system for extending interactivity of presentation markup languages (See Bowman, paragraph 17).

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7. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lentini et al. (US PG. Pub. No. 2003/0088639), in view of Bowman (US PG. Pub. No. 2004/0111672) and further in view of Farrell et al. (US PG. Pub. No. 2005/0192955).

As to claims 18 and 20, Lentini, as modified by Bowman, does not explicitly disclose:

wherein encoding lengths are selected based on statistics defining a maximum number of descendants associated with any given node

However, Farrell does disclose:

wherein encoding lengths are selected based on statistics defining a maximum number of descendants associated with any given node (see paragraph 15).

It would have been obvious to have modified the teachings of Lentini and Bowman by the teachings of Farrell to find edges and to find the best path through a graph (see Farrell, paragraph 15).

***Response to Arguments***

8. Applicant's arguments with respect to claims 1-4, 9, and 14-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnese Johnson whose telephone number is 571-270-1097. The examiner can normally be reached on 4/5/9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. J./  
Examiner, Art Unit 2166

May 8, 2010  
JJ

/Khanh B. Pham/  
Primary Examiner, Art Unit 2166